FACT SHEET #11:

Erosion Control

Measures to Reduce Erosion

The following temporary measures are useful for controlling soil erosion during construction:

- Vegetative Cover
- Mulch
- Surface Roughening
- Irrigation
- Spray-On Adhesives
- Calcium Chloride
- Stone
- Barriers

These same measures are also effective in reducing airborne dust particles that contribute to particulate air pollution.

Planting **vegetative cover** re-stabilizes disturbed surface areas that will not be brought to final grade for more than 30 days. Examples include trees, shrubs, vines or ground covers. Seeding reduces erosion and decreases sediment yield. These techniques also provide wildlife habitat and enhance the natural beauty of the area.

Mulch is applied to the soil surface to conserve a desirable soil property or to promote plant growth. A surface mulch is one of the most effective means of controlling runoff and erosion on disturbed land. Some organic mulches include straw, hay, corn stalks, bark chips, and fiber mulch.

Surface roughening during tillage reduces runoff, increases infiltration, and traps sediment. This practice is designed to roughen and bring clods to the surface. Plowing is done on the windward side of the site with chisel-type plows spaced 12 inches part. This is generally done as an emergency measure before wind erosion starts.

Irrigation is the most commonly used erosion and dust control practice. The site is sprinkled with water until the surface is wet and this is repeated, as needed. This offers fast protection for haul roads and other heavy traffic routes.

Spray-on adhesives are most effective in controlling erosion of mineral soils. Many are able to withstand heavy traffic loads. Some examples are asphalt emulsion, latex emulsion, resin in water, and acrylic emulsion.

Calcium chloride may be applied with a mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist, but not so high as to cause water pollution or plant damage.

Stone applied to entrances and exits of a construction site will prevent tracking or flow of mud onto paved public rights-of-way. This may require periodic top dressing with additional stone, the washing and reworking of stone, and repair of any structures used to trap sediment as conditions demand. Generally, 2-3 inch stone is applied.

Barriers that decrease erosion and dust include board, wind, and sediment fences. If placed perpendicular to prevailing air currents, these help to control blowing soil.